

FIG. 1

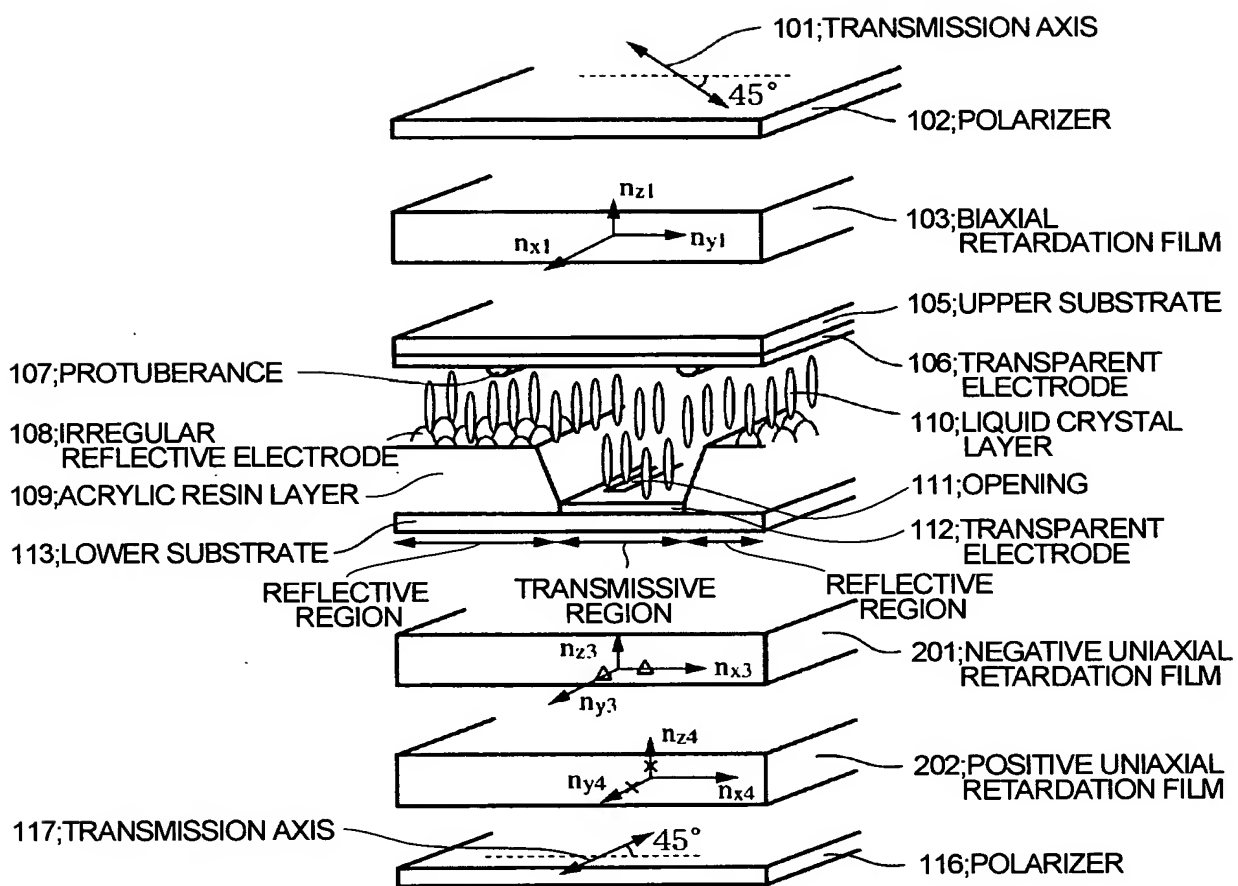


FIG. 2

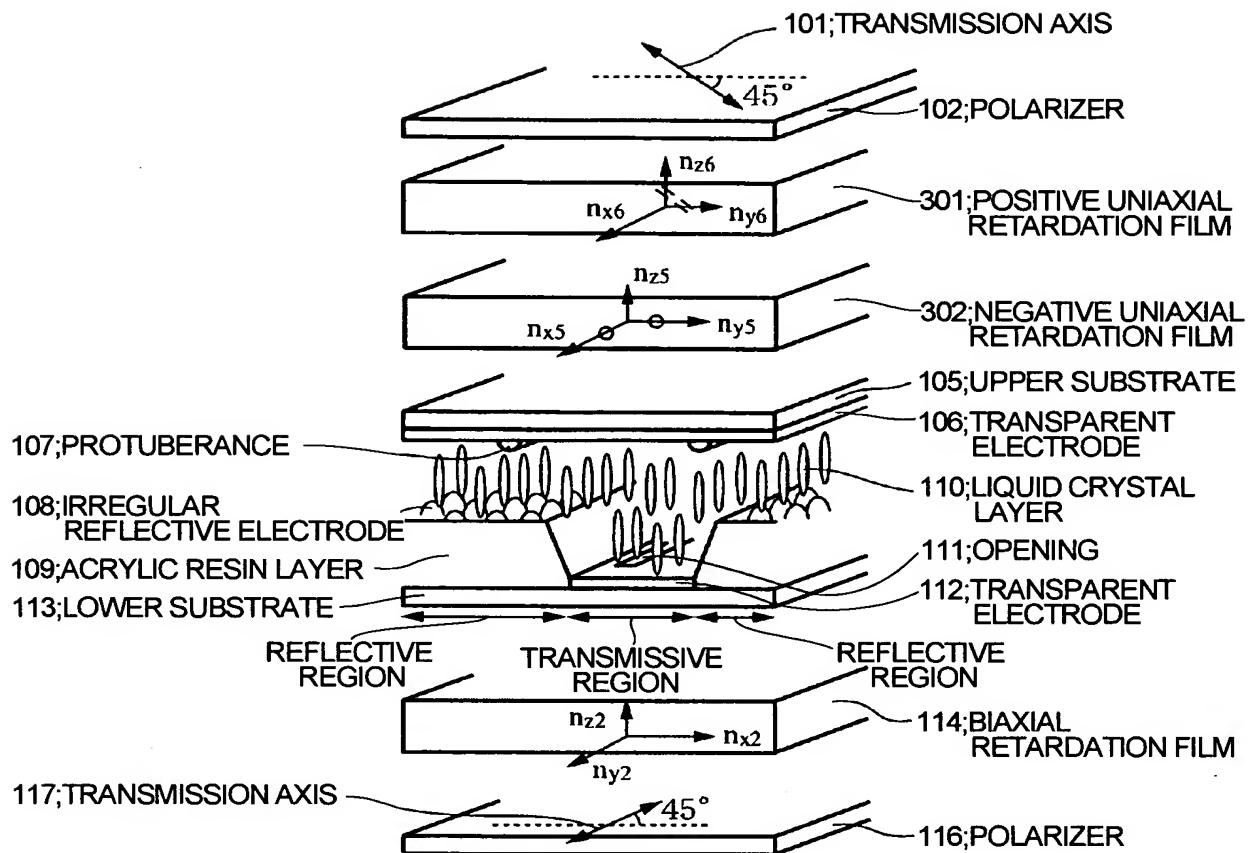


FIG. 3

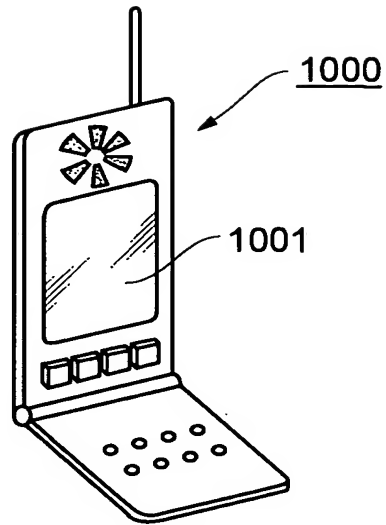


FIG. 4

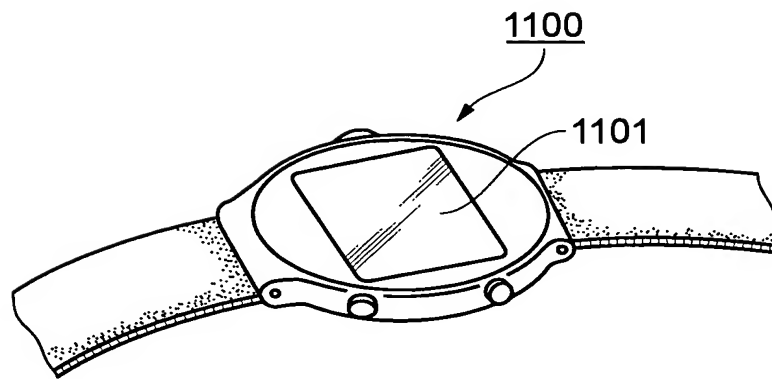


FIG. 5

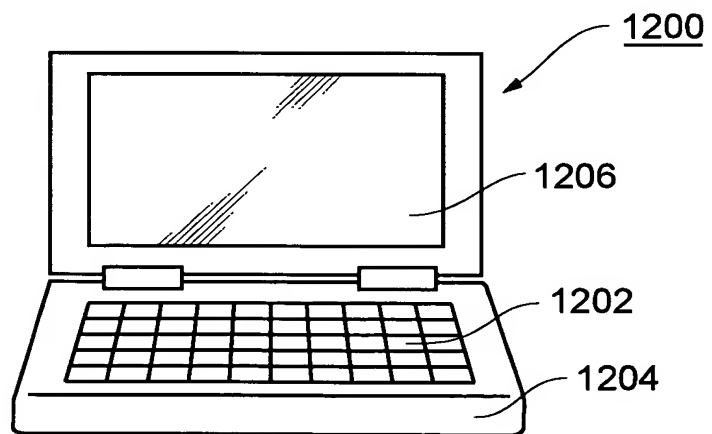


FIG. 6

TRANSMISSIVE LIQUID CRYSTAL LAYER $\Delta n d(R)$ nm	300	300	300	300	300	300	300	300	300
SUM OF PHASE DIFFERENCE VALUES IN DIRECTION Z Wl (nm)	100	118	150	175	200	225	240	260	300
$W1/Rt$	0.33	0.39	0.50	0.58	0.67	0.75	0.80	0.87	0.87
TRANSMISSIVE DISPLAY VISIBILITY ANGLE RANGE (CR>30)°	21	25	35	50	41	35	26	19	19

FIG. 7A

TRANSMISSIVE LIQUID CRYSTAL LAYER $\Delta n d(R)$ nm	500	500	500	500	500	500	500	500	500
SUM OF PHASE DIFFERENCE VALUES IN DIRECTION Z Wl (nm)	150	190	250	300	335	375	400	450	500
$W1/Rt$	0.30	0.38	0.50	0.60	0.67	0.75	0.80	0.90	0.90
TRANSMISSIVE DISPLAY VISIBILITY ANGLE RANGE (CR>30)°	18	23	36	48	40	35	23	19	19

FIG. 7B

TRANSMISSIVE LIQUID CRYSTAL LAYER $\Delta n_d(Rt)$ nm	400	400	400	400	400	400	400	400	400
SUM OF PHASE DIFFERENCE VALUES IN DIRECTION Z $W2(nm)$	125	160	200	245	270	300	340	370	
$W2/Rt$	0.31	0.40	0.50	0.61	0.68	0.75	0.85	0.93	
TRANSMISSIVE DISPLAY VISIBILITY ANGLE RANGE (CR>30) $^{\circ}$	21	24	36	52	43	36	25	20	

FIG. 8

TRANSMISSIVE LIQUID CRYSTAL LAYER $\Delta n_d(Rt)$ nm	380	380	380	380	380	380	380	380	380
SUM OF PHASE DIFFERENCE VALUES IN DIRECTION Z $W3(nm)$	120	160	190	235	265	285	310	350	
$W3/Rt$	0.32	0.42	0.50	0.62	0.70	0.75	0.82	0.92	
TRANSMISSIVE DISPLAY VISIBILITY ANGLE RANGE (CR>30) $^{\circ}$	18	23	37	51	44	36	27	19	

FIG. 9

REFLECTIVE LIQUID CRYSTAL LAYER $\Delta n d(R_r)$ nm	180	180	180	180	180	180	180	180	180	180
SUM OF PHASE DIFFERENCE VALUES IN DIRECTION Z $W4$ (nm)	50	70	90	115	125	135	150	170		
$W4/R_r$	0.28	0.39	0.50	0.64	0.69	0.75	0.83	0.94		
REFLECTIVE DISPLAY VISIBILITY ANGLE RANGE (CR>10)°	17	25	35	48	46	36	27	18		

FIG. 10A

REFLECTIVE LIQUID CRYSTAL LAYER $\Delta n d(R_r)$ nm	200	200	200	200	200	200	200	200	200	200
SUM OF PHASE DIFFERENCE VALUES IN DIRECTION Z $W4$ (nm)	60	80	100	120	135	150	170	190		
$W4/R_r$	0.30	0.40	0.50	0.60	0.68	0.75	0.85	0.95		
REFLECTIVE DISPLAY VISIBILITY ANGLE RANGE (CR>10)°	15	22	32	45	42	33	23	14		

FIG. 10B

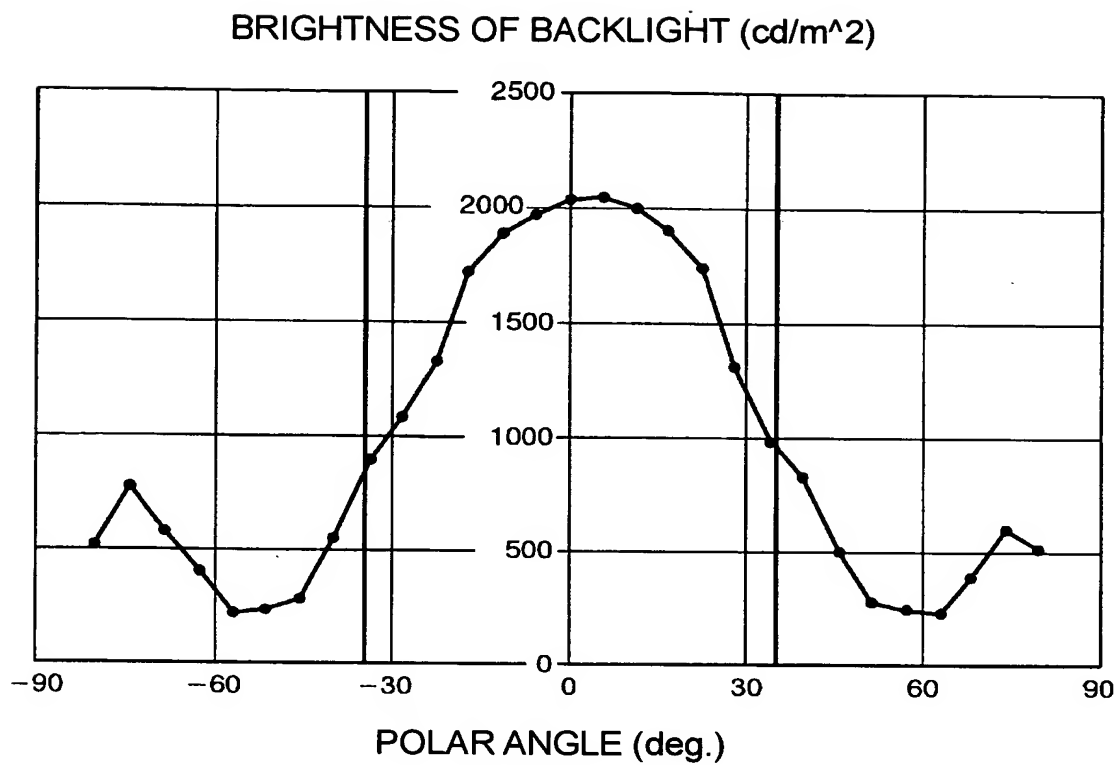


FIG. 11

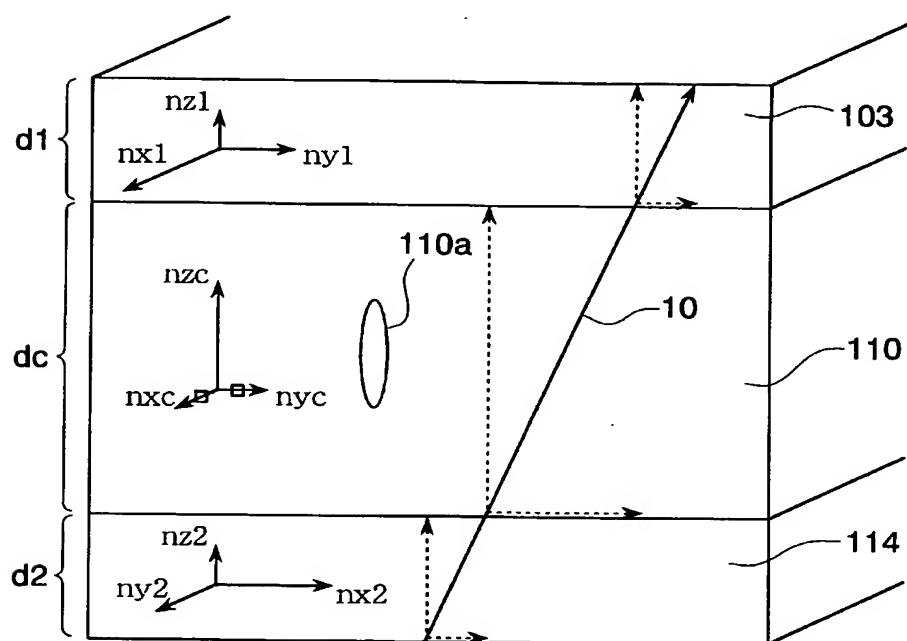


FIG. 12